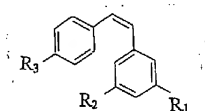


**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-23. (Cancelled)

24. (Previously Presented) A method for synthesizing the compound **14g** having the following structure and wherein  $R_1 = -OH$  and  $R_2=R_3 = -OCH_3$ :



comprising the following steps:

(a) protecting 3,5-dihydroxybenzaldehyde by reacting it in dimethylformamide with DIEA and silyl chloride;

(b) separating the products of step (a) to obtain 3-(tert-butyldimethylsilyloxy)-5-hydroxybenzaldehyde;

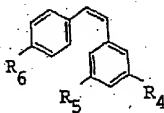
(c) adding to the 3-(tert-butyldimethylsilyloxy)-5-hydroxybenzaldehyde obtained in step (b) molecular sieves, proton sponge and trimethyloxonium tetrafluoroborate, then stirring, then filtering, then rinsing sieves with ethyl acetate, then removing the ethyl acetate containing solvent from the filtrate to yield an oil;

(d) purifying the oil produced in step (c), to yield 3-(tert-butyldimethylsilyloxy)-5-methoxybenzaldehyde;

(e) reacting the 3-(tert-butyldimethylsilyloxy)-5-methoxybenzaldehyde produced in step (d) with 4-(tert-butyldiphenylsilyloxy)-benzyltriphenyl phosphonium bromide to produce (Z)- and (E)-3-(tert-butyldimethylsilyloxy)-5,4'-dimethoxy-stilbene; and

(f) deprotecting, and then separating, the product of step (e), to obtain compound **14g**.

25. (Previously Presented) A method for synthesizing the compound **14c** having the following structure wherein  $R_4 = R_5 = -OCH_3$  and  $R_6 = -OH$ :



comprising the following steps:

(a) protecting 4-hydroxybenzaldehyde by reaction with Hunig's base to obtain a solution of 4-(tert)-butyldimethylsilyloxy-benzaldehyde;

(b) adding tert-butyldimethylsilylchloride to the solution formed in step (a);

(c) pouring the reaction mixture of step (b) into water, extracting with solvent, and removing solvent in vacuo to recover 4-(tert)-butyldimethylsilyloxy-benzaldehyde;

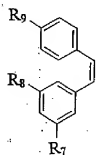
(d) reacting the 4-(tert)-butyldimethylsilyloxy-benzaldehyde obtained in step (c) with 3,5-dimethoxybenzyltriphenyl phosphonium bromide and n-butyl lithium in tetrahydrofuran to form (Z)- and (E)-4'-(tert-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene;

(e) separating the (Z) and (E) isomers of the 4'-(tert-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene formed in step (d) to obtain (Z)-4'-(tert-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene;

(f) reacting the (Z)-4'-(tert-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene in anhydrous tetrahydrofuran with tetrabutylammonium fluoride; and

(g) separating the products of step (f) to obtain compound **14c**.

26. (Previously Presented) A method for synthesizing the compound **14k** having the following structure wherein  $R_7 = R_8 = -OH$  and  $R_9 = -OCH_3$ :



comprising the following steps:

(a) reacting 4-methoxybenzyltriphenylphosphonium bromide and 3,5-di(*tert*-butyldimethylsilyloxy)-benzaldehyde to obtain (Z)- and (E)-3,5-di(*tert*-butyldimethylsilyloxy)-4'-methoxy-stilbene);

(b) deprotecting the (Z)- and (E)-3,5-di(*tert*-butyldimethylsilyloxy)-4'-methoxy-stilbene obtained in step (a); and

(c) separating the product of step (b) to obtain compound **14k**.

27. (Previously Presented) A method for synthesizing compound **14m**, the resveratrol derivative of claim 4 wherein  $R_{10}=R_{11}= -OCH_3$  and  $R_{12} = -O(PO)(OBn)_2$ ,

comprising the following steps:

(a) protecting 4-hydroxybenzaldehyde with Hunig's base to obtain a solution of 4-(*tert*-butyldimethylsilyloxy)-benzaldehyde;

(b) adding *tert*-butyldimethylsilylchloride to the solution formed in step (a);

(c) pouring the solution formed in step (b) into water, extracting with solvent, and removing solvent *in vacuo* to recover 4-(*tert*-butyldimethylsilyloxy)-benzaldehyde;

(d) reacting the 4-(*tert*-butyldimethylsilyloxy)-benzaldehyde obtained in step (c) with phosphonium bromide and *n*-butyl lithium in tetrahydrofuran to form (Z)- and (E)-4'-(*tert*-butyldimethylsilyloxy)-3,5 -dimethoxy-stilbene;

(e) separating the (Z) and (E) isomers of the 4'-(*tert*-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene to obtain (Z)-4'-(*tert*-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene;

(f) reacting the (Z)-4'-(*tert*-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene obtained in step (e) with tetrabutylammonium fluoride and stirring, and separating the product of step (f) to obtain (Z)-3,5-dimethoxy-4'-hydroxy-stilbene;

(g) forming, then cooling, a mixture of (Z)-3,5-dimethoxy-4'-hydroxy-stilbene obtained from step (f) and *N,N*-dimethylaminopyridine in anhydrous acetonitrile;

(h) adding carbon tetrachloride and DIEA and to the cooled mixture of step (g), and stirring;

(i) pouring the product of step (h) into monobasic potassium phosphate, extracting with solvent and then removing solvent *in vacuo* to yield an organic phase; and

(j) subjecting the organic phase from step (i) to separation to obtain compound **14m**.

28. (Previously Presented) A method for synthesizing compound **14n**, the resveratrol derivative of claim 4 wherein  $R_{10} = R_{11} = -OCH_3$  and  $R_{12} = -O(PO)(ONa)_2$ , comprising the following steps:

(a) protecting 4-hydroxybenzaldehyde with Hunig's base to obtain a solution of 4-(*tert*-butyldimethylsilyloxy)-benzaldehyde;

(b) adding *tert*-butyldimethylsilylchloride to the solution formed in step (a);

(c) pouring the solution formed in step (b) into water, extracting with solvent, and removing solvent *in vacuo* to recover 4-(*tert*-butyldimethylsilyloxy)-benzaldehyde;

(d) reacting the 4-(*tert*-butyldimethylsilyloxy)-benzaldehyde obtained in step (c) with phosphonium bromide and *n*-butyl lithium in tetrahydrofuran to form (Z)- and (E)-4'-(*tert*-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene;

(e) separating the (Z) and (E) isomers of the 4'-(*tert*-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene to obtain (Z)-4'-(*tert*-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene;

(f) reacting the (Z)-4'-(*tert*-butyldimethylsilyloxy)-3,5-dimethoxy-stilbene obtained in step (e) with tetrabutylammonium fluoride and stirring, and separating the product of step (f) to obtain (Z)-3,5-dimethoxy-4'-hydroxy-stilbene;

(g) forming, then cooling, a mixture of (Z)-3,5-dimethoxy-4'-hydroxy-stilbene obtained from step (f) and *N,N*-dimethylaminopyridine in anhydrous acetonitrile;

(h) adding carbon tetrachloride and DIEA and to the cooled mixture of step (g), and stirring;

(i) pouring the product of step (h) into monobasic potassium phosphate, extracting with solvent and then removing solvent *in vacuo* to yield an organic phase;

(j) subjecting the organic phase from step (i) to separation to obtain (Z)-3,5-dimethoxy-4-[O-bis(benzyl)phosphoryl]-stilbene;

(k) adding bromotrimethylsilane to a solution of the (Z)-3,5-dimethoxy-4-[O-bis(benzyl)phosphoryl]-stilbene obtained in step (j) in anhydrous dichloromethane, and stirring;

(l) adding water to the stirred solution obtained in step (k), washing with solvent to form an aqueous phase, then freeze drying the aqueous phase to form a solid;

(m) forming a solution of the solid formed in step (l) and a solvent, adding sodium methoxide to the solution, stirring, removing the solvent; and

(n) recovering a solid remaining after step (m) to obtain compound **14n**.